

Lawrence J. Myers
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 Auburn University, AL 36849
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1. Education:

Institution	Degree	Major	Date Awarded
Mississippi State University	D.V.M.	Veterinary Medicine	1981
Oklahoma State University	Ph.D.	Neurophysiology	1981
Oklahoma State University	M.S.	Zoology/Ethology	1977
Oklahoma State University	B.S.	Wildlife Ecology	1972

2. Professional Experience:

1. Auburn University, Associate Director, Institute for Biological Detection Systems, 1995-1996.
2. Auburn University, Director, Institute for Biological Detection Systems, 1989-1995.
3. Auburn University, Associate Professor, Department of Physiology and Pharmacology, College of Veterinary Medicine, 1992-present
4. Auburn University, Assistant Professor, Department of Physiology and Pharmacology, College of Veterinary Medicine, 1982-1992.
5. Mississippi State University, Resident, College of Veterinary Medicine, 1978-1981.

3. Honors and awards. -

Academic Honors

1. Phi Zeta, (Honor society of Veterinary Medicine) 1982-present.
2. Graduate Excellence In Research Award, Oklahoma State University, 1974.
3. James Scholar, University of Illinois, 1968.
4. National Merit Finalist, 1967.

Other honors, panels, chairmanships, and awards

1. Panelist, National Academies of Science, Biotechnology Applications for Improving the Detection Capabilities of Canines, Washington, DC, 2003
2. Co-chairman and Co-Host, Third National Detector Dog Conference, Miami Beach, FL, 2003.
3. Co-chairman and Co-Host, Second National Detector Dog Conference, Miami Beach, FL, 2001.
4. Chairman and Host, First National Detector Dog Conference, Auburn, AL, 1998
5. Chairman, Biological Methods of Detection, technologies in Assistance to Law Enforcement, Boston, 1996.
6. Co-chairman, 4th Annual FAA Canine Conference, Atlanta Georgia, 1996.
7. Moderator, US Army Future Technologies Institute Biotechnology Workshop, US Army War College, 1996.

8. Member, 921 Committee Task Force on the Use of Dogs and Instruments for Investigation of Potential Arsons, 1995-present.
9. Steering Committee, Noninvasive Inspection Technologies Working Group, SPIE, 1993-.
10. Board of Directors, California Narcotic Canine Association, 1993- present.
11. Chairman, Real-Time, Noninvasive, Detection Technologies meeting, Innsbruck, Austria, 1993.
12. Board of Directors, Canine Accelerant Detection Association, 1993-present.
13. Adjunct faculty appointment, Department of Psychology, Auburn University, 1991 -1996.
14. Board of Research Advisers, Environmental Research Center, University of Nevada - Las Vegas, 1990-1996.
15. Director, Institute for Biological Detection Systems, 1989-1995.
16. Executive Board. American Veterinary Neurology Association, 1989-1991.
17. Program Committee, American College of Veterinary Internal Medicine Forum, 1987- 1988.
18. President, American Veterinary Neurology Association, 1987-1989
19. President-elect and scientific program chair, American Veterinary Neurology Association, 1985-1987

4. Teaching

1. Courses taught:

1. Neurophysiology (Professional course)
2. Neuroscience (Graduate course)
3. Research and thesis (Graduate course)
4. Ethology (Professional course)
5. Pharmacology I and II (Professional courses)
6. Experimental surgery (Graduate course)
7. Medical physiology I and II (Graduate courses)
8. Applied Animal Behavior (Professional course)
9. Diagnostic problem solving (Professional course)

2. Graduate students- Work Completed:

1. Committee- Deepa Srikumar- MS
2. Committee- Allison Jennart- MS
3. Committee- Eric Altom, PhD, 1999. Currently a research scientist at IAMS Company
4. Committee- Paul Waggoner, M.S., 1996. Currently Director, IBDS
5. Committee- Vishnu Supurinam, Ph.D., 1994. Currently Assistant Professor,

Tuskegee University, College of Veterinary Medicine.

6. Committee- Akinsegun Aldtunde, Ph.D., 1993. Position unknown.
7. Chairman of committee and thesis director- Patrick Ezeh, Ph.D. awarded 1991. Completed a postdoctoral fellowship at Emory University and at Northwestern University.
8. Chairman of committee and thesis director- Gail Heavner (nee' Trezinski), M.S. awarded 1989. Current position: veterinarian in practice.
9. Graduate School representative to committee- Joan Kerr, Ph.D., 1987. Position unknown.
10. Chairman of committee and thesis director- Kim May, M.S. awarded 1986. Last known position research scientist, Proctor and Gamble
11. Committee- Andrew Shores, Ph.D. awarded 1986. Later an associate professor, College of Veterinary Medicine, Mississippi State University and Michigan State University.
12. Committee- John Crowe, M.S. awarded 1986. Completed M.D./ Ph.D. University of South Alabama
13. Chairman of committee and thesis director- Renee Nash, M.S. awarded 1984. Received D.V.M. Currently in practice.

3. Graduate Students- Current

Kristen Clarke, PhD expected 2003

4. Courses and Curricula Developed

1. Applied animal behavior
2. Neuroscience
3. Selected readings in veterinary medicine
4. Cell Physiology and neuroscience

5. Ethology
6. Advanced Veterinary Applications, Sensory Evaluation
7. Animals in Society. A curriculum developed under Pew Foundation auspices.

6. *Research Creative Work*

Books:

1. *The Detector Dog And Humanity: History And Progress* (Working title). In preparation for CRC Press.

Book chapters:

1. Lauridson, JR; Myers, LJ: Evaluation of fatal dog bites: The view of the Medical Examiner and Animal Behaviorist—A Case Report, pp: 325-332, in *Animal Law And Dog Behavior*, Favre, DF and Borchelt, PL (eds), Lawyers & Judges Publishing Co., Inc., Tucson, AZ, 1999.
2. Strain, G & Myers, LJ: Hearing, in press for Duke's Textbook of Animal Physiology, expected publish date, 2004.
3. Myers, LJ: Smell, in press for Duke's Textbook of Animal Physiology, expected publish date, 2004.
4. Myers, LJ: Vision, in press for Duke's Textbook of Animal Physiology, expected publish date, 2004.

5. Redding, Richard W; Myers, Lawrence J: Evoked Responses, pp. 168-177 in: *Veterinary Neurology*, Oliver, J and Hoerlein, B F (ed.), W.B. Saunders Co., Philadelphia, 1987.

Government reports:

Between 1989 and 1995, over 40 reports were generated in fulfillment of contractual requirements. All not currently published are not to be published.

Refereed articles:

- 1 Altom, E, Cummins, KE, Davenport, G, and Myers, LJ: Effect of dietary fat source and exercise on odorant- detecting ability of canine. *Research in Veterinary Science* 75:149-155, 2003.
- 2 Furton, KG, Myers, LJ: The scientific foundations and efficacy of the use of canines as chemical detectors for explosives. *Talanta* 54(3): 487-500, 2001.
- 3 Pathirana, S, Myers, LJ, Vodyanoy, V, Neely, WC: Assembly of cadmium stearate and valinomycin molecules assists completing of K⁺ in mixed Langmuir-Blodgett films. *Supramolecular Science* 3: 245-248, 1996.
- 4 Hartell, M. G., Myers, L. J., Waggoner, L. P., Kuhlman, M.; Hallowell, S. F., Petrousky, J. A.: Design and testing of a quantitative vapor delivery system. *Proceedings of the 5th International Symposium on the Analysis and Detection of Explosives*. Washington, D.C.: Bureau of Alcohol. Tobacco, & Firearms. 1995

- 5 Johnston, J.M., Waggoner, L. P., M. Williams, J.M. Jackson, M.L. Jones, L.J. Myers, Hallowell, S.F., Petrousky, J.A., Deso, W. Canine olfactory capability for detecting smokeless powder. Washington, D.C.: Bureau of Alcohol, Tobacco, and Firearms. *Proceedings of the 5th International Symposium on the analysis and detection of explosives*, 1998
- 6 Johnston, JM, Myers, LJ, Waggoner, P, Williams, M: Determination of canine olfactory thresholds using operant laboratory methods. *Substance Detection Systems* 2092:238-242. 1994.
- 7 Lauridson, JR, Myers, LJ: Evaluation of fatal dog bites: The view of the medical examiner and animal behaviorist. *Journal of Forensic Science*, 38: 726-731, 1993.
- 8 Wu, C S, Myers, Lawrence J, Worley, S David: A semi empirical SCF MO study of the interaction of odorant molecules with a biological substrate. *International Journal of Quantum Chemistry*, 44: 549-563, 1992.
- 9 Pathirana, Suram, Neely, William C, Myers, Lawrence J, Vodyanoy, Vitaly: Interaction of valinomycin and stearic acid in monolayers. *Langmuir*, 8: 1984-1987, 1992.
- 10 Pathirana, Suram, Neely, William C, Myers, Lawrence J, Vodyanoy, Vitaly: Chiral recognition of odorants (+) and (-)-carvone by phospholipid monolayers, *Journal of the American Chemical Society*, 114: 1404-1405, 1992.
- 11 Sorjonen, Donald, Thomas, William B, Myers, Lawrence J, Cox, Nancy R: Radical cerebral cortical resection in dogs. *Progress in*

Veterinary Neurology, 2(4): 225-236, 1991.

- 12 Myers, Lawrence J.: Use of innate behaviors to evaluate sensory function in the dog, pp. 389-399 in: *Advances in Companion Animal Behavior (Veterinary Clinics of North America)*, Vol. 21 (2). 1991.
- 13 Ezech, Patrick I, Myers, Lawrence J, Hanrahan, Lynn A, Kemppainen, Robert J, Cummins, Keith A: Effects of steroids on the olfactory function of the dog. *Physiology and Behavior*, 51: 1183-1187, 1992.
- 14 Lee, Tamara P, Myers, Lawrence J: Document delivery at a veterinary medical library: A one-year study of use patterns. *Collection Management*, 16(2): 75-92, 1992.
- 15 Ezech, Patrick I, Myers, Lawrence J, Cummins, Keith A, Whitley, Richard D: Functional visual acuity of the dog as assessed by an optokinetic device. *Progress in Veterinary Neurology*. 1(4): 427-432, 1990.
- 16 Myers, Lawrence J: Dysosmia of the dog in clinical veterinary medicine. *Progress in Veterinary Neurology*, 1: 171-179, 1990.
- 17 Ezech, Patrick I, Myers, Lawrence J: Functional visual acuity in the dog: Development and use of the refined optokinetic technique. *Proceedings of Seventh Annual Veterinary Medical Forum*. 631-634, 1989.
- 18 Myers, Lawrence J, Hanrahan, Lynn A, Swango, Larry J; Nusbaum, Ken E: Anosmia associated with canine distemper. *American Journal of Veterinary Research*, 49:1295-1297,1988.

- 19 Myers, Lawrence J, Nusbaum, Ken E, Swango, L J; Hanrahan, Lynn A, Sartin, Eva: Dysfunction of the sense of smell caused by canine parainfluenza virus infection in dogs. *American Journal of Veterinary Research*, 49:189-190, 1988.
- 20 Simpson, Steven T, Myers, Lawrence J: Dysosmia caused by encephalitis. *American Journal of Veterinary Medicine*, 191:1593, 1987.
- 21 May, Kim, Myers, Lawrence J, Buxton, Donald F: Association of anosmia with anorexia in the cat. *Annals of the New York Academy Science*. 510:480-482, 1987.
- 22 Myers, Lawrence J, Boddie, Randy, May, Kim: Electrophysiological and innate behavioral responses of the dog to intravenous application of sweet compounds. *Annals of the New York Academy Science*, 510:519-520, 1987.
- 23 Myers, Lawrence J, Hanrahan, Lynn A: Olfactory function and dysfunction in the dog. *Proceedings of the Veterinary Internal Medicine Forum* 5:851-858, 1987.
- 24 Myers, Lawrence J: New techniques to evaluate sensory function in the dog. *Proceedings of the Veterinary Internal Medicine Forum* 5:281-284, 1987.
- 25 Myers, Lawrence J, Redding, Richard W; Wilson, Sharon: Abnormalities of the brainstem auditory evoked response of the dog associated with equilibrium deficit and seizure. *Veterinary Research Communications*, 10:73-78, 1986.

- 26 Myers, Lawrence J, Redding, Richard W; Wilson, Sharon: Reference values of the brainstem auditory evoked response of the dog. *Veterinary Research Communications*, 9:289-294,1985.
- 27 Myers, Lawrence J, Pugh, Ross: Thresholds of the dog for detection of inhaled eugenol and benzaldehyde determined by electroencephalographic and behavioral olfactometry. *American Journal of Veterinary Research* 46:2409-2412, 1985.
- 28 Myers, Lawrence J, Nash, Renee, Elledge, Holly S: Electro-olfactography: A technique with potential for diagnosis of anosmia in the dog. *American Journal of Veterinary Research* 45: 2296-2298, 1984.
- 29 Myers, Lawrence J, Jennings, David P: Effects of intra-jugular hypertonic saline, vaginal distention and vulvar massage on activity of supraoptic neuroendocrine cells. *Brain Research* 326: 366-369, 1984.

Other Invited articles:

- 1 Myers, Lawrence J.: The dog-handler team as a detection system for explosives: A tail to be told. *SPIE Proceedings: Critical Reviews of Optical Scienceand Technology*, CR42: 92-103, 1992.
- 2 Myers, Lawrence J: Olfactory function and dysfunction in dogs and cats. (Hundens luktesans. *Dyr og Mennesker IFokus I*: 101-103, 1987.
- 3 Myers, Lawrence J: Sensory function of the dog and cat.

(Husdyrenes sanser.) *Dyr Og Mennesker IFokus* 1:95-97, 1987.

Abstracts:

- 1 Altom, E, Cummins, KA, Myers, LJ, Davenport, GM, Gore, AM: Endocrine responses to the dietary fat and physical conditioning in canine athletes during treadmill exercise. *Purina Nutrition Forum*, 1998.
- 2 Callahan, H.M., Head, E., Adam, G.E., Sutherland, R.J., Muggenberg, B.A., Myers, L.J., Cotman, C.W., & Milgram, N.W. (1997). Object recognition memory in the dog. *Neuroscience Abstracts*, 23, 1597.
- 3 Sinnarajah, S, Ezeh, PI, Pathirana, S, Myers, LJ, Vodyanoy, V: Odorant sensitive adenylyl cyclase is functionally inhibited by odorant in presence of forskolin. Submitted, *Society for Neuroscience Abstracts*, 1996.
- 4 Pathirana, S, Neely, WC, Myers, LJ, Vodyanoy, V: *International Symposium on Micelles, Microemulsions and Monolayers*, 1996.
- 5 Hartell, MG, Myers, IJ, Waggoner, P, Kuhlman, M, Hallowell, SF, Petrousky, JA: Olfactometry: Theory and Operation.
- 6 Myers, Lawrence J., Worley, S. David, Tsao, T.: Detection of cocaine HCl off different purities and of methylbenzoate by dogs. *Proceedings of the American Academy of Forensic Sciences* 44: 120, 1992.
- 7 Lauridson, James R., Myers, Lawrence J.: Evaluation of fatal dog bites. *Proceedings of the American Academy of Forensic Sciences* 44: 155, 1992.

- 8 Pathirana, Suram, Neely, William C, Eckert, Karen, Giacomino, Lynne, Ransone, Sheila, Myers, Lawrence J, Vodyanoy, Vitaly. Surface properties of valinomycin-stearic acid monolayers. *Biophysical Society Proceedings*, 1991.
- 9 Vodyanoy, Vitaly, Pathirana, Suram, Myers, Lawrence J, Neely, William C: Molecular recognition of optical isomers (+)- and (-)-carvone by phospholipid monolayers. *Biophysical Journal* 59: 636a, 1991.
- 10 Cummins, Keith A, Myers, Lawrence J: Effect of olfactory masking with anise oil on aggressive behavior and milk production in cows. *Journal of Dairy Science*, 1990.
- 11 Ezeh, Patrick I, Myers, Lawrence J: Preliminary studies on the effect of steroids on olfactory function of the dog. *Chemical Senses*, 14:698, 1989.
- 12 Myers, Lawrence J: Elimination patterns of dogs in three types of confinement. *Proceedings of the American Veterinary Society for Animal Behavior*, 1988.
- 13 Myers, Lawrence J, Ezeh, Patrick I: Visual acuity of the dog measured by optokinetic technique: A preliminary estimate. *Proceedings of the American Veterinary Neurology Association*, 1998.
- 14 Cummins, Keith A, Myers, Lawrence J: Effect of visual and olfactory alterations on social behavior of lactating dairy cows. *Journal of Dairy Science* 71 (Supplement 1): 189, 1989.
- 15 Hanrahan, Lynn A; Myers, Lawrence J; Swango, Larry J: Olfactory lesions associated with canine distemper: A preliminary study.

Proceedings of the Animal Disease Research Workers of the Southern States, 1987.

- 16 May, Kim; Myers, Lawrence J; Buxton, Donald F: The association of anosmia with anorexia in the cat. *Chemical Senses* 11:635, 1986.
- 17 Myers, Lawrence J; Boddie, R; May, K: Electrophysiological and innate behavioral responses of the dog to intravenous application of sweet compounds. *Chemical Senses* 11:643-644, 1986.
- 18 Myers, Lawrence J; Hanrahan, Lynn A; Nusbaum, Ken E; Swango, Larry J: Evaluation of canine olfactory function in health and disease by innate behavioral and electrophysiological techniques. *Chemical Senses*, 10:411, 1985.
- 19 Myers, Lawrence J: Development of new techniques for evaluation of olfactory function in the canine. *Journal of the Alabama Academy of Science*, 55:222, 1984.
- 20 Myers, Lawrence J: Techniques for neurological examination of the olfactory system of the dog. *Proceedings of the American Veterinary Neurology Association*, 1984.

Lay Publications:

- 1 Myers, Lawrence J: A dog's nose: Part I. *Off-Lead*, 16 (2): 16-18, 1987.
- 2 Myers, Lawrence J: A dog's nose: Part II. *Off-Lead*, 16 (6): 10-11, 1987.

- 3 Myers, Lawrence J: A dog's nose: Part III. *Off-Lead*, 16(7): 10-12, 1987.
- 4 Myers, Lawrence J: A dog's nose: Part IV. *Off-Lead*, 16(12): 10-13, 1987.

Invited presentations to scientific meetings

1. Myers, Lawrence J: Conditions causing abnormalities of the sense of smell, First National Detector Dog Conference, Auburn, AL 1998.
2. Myers, Lawrence J: Strengths and Weaknesses of the Detector Dog. Gordon Conference on Substance Detection, Oxford, England, 1997.
3. Myers, Lawrence J: Review of potential problems with detector dogs, FAA Canine Conference, Atlanta, GA, 1996.
4. Myers, Lawrence J: Issues on the sensory function of detector dogs, FAA Canine Conference, Birmingham, AL, 1994.
5. Myers, Lawrence J: The dog-handler team: An old technology on the leading edge. Contraband and Cargo Inspection Technology International Symposium, Washington, DC, 1992.
6. Myers, Lawrence J.: The dog-handler team as a detection system for explosives: A tail to be told. *SPIE. - Critical Reviews of Technology*, San Diego, CA, 1992.
7. Myers, Lawrence J: The dog-handler team as detectors of

concealed explosives. International Association of Bomb Technicians and Investigators, Los Angeles, CA, 1991.

8. Myers, Lawrence J: Use of dogs in detection: Sensory cues and sensory capabilities. Forensic Animal Behavior/ Animal Behavior Society, Wilmington, NC, 1991.
9. Lauridson, James, Myers, Lawrence J.: Evaluation of a fatal dog bite: Views of a medical examiner and a behaviorist. Forensic Animal Behavior/ Animal Behavior Society, Wilmington, NC, 1991.
10. Myers, Lawrence J: An overview of the prospects for biosensor research and development. Office of Naval Research meeting, Washington, DC, 1990.
11. Ezeh, Patrick 1, Myers, Lawrence J: Functional visual acuity in the dog: Development and use of the refined optokinetic technique. Seventh Annual Veterinary Medical Forum, San Diego, CA, 1989.
12. Hanrahan, Lynn A; Myers, Lawrence J; Swango, Larry J: Olfactory function and dysfunction in the dog. First International Canine Symposium, Monterrey, Mexico. 1987.
13. Myers, Lawrence J: New techniques to evaluate sensory function in the dog. American College of Veterinary Internal Medicine Forum, San Diego, CA, 1987.
14. Myers, Lawrence J; Hanrahan, Lynn A: Olfactory function and dysfunction in the dog. American College of Veterinary Internal

Medicine Forum, San Diego, CA, 1987.

15. Myers, Lawrence J: Special sensory function in the dog.
Symposium: The Dog in Service to Humanity, Geilo, Norway.
1987.
16. Myers, Lawrence J: Olfaction in dogs. Symposium: The Dog in
Service to Humanity, Geilo, Norway. 1987.
17. Myers, Lawrence J: Olfactory function and dysfunction in dogs
and cats. Symposium: Pets and People in Focus, Oslo, Norway.
1986.
18. Myers, Lawrence J: Sensory function of the dog and cat.
Symposium: Pets And People In Focus, Oslo, Norway. 1986.

Other presentations to scientific meetings:

1. Myers, Lawrence J., Worley, S. David, Tsao, T.: Detection of cocaine HCl off different purities and of methylbenzoate by dogs. *Proceedings of the American Academy of Forensic Sciences* 44: 120, 1992.
2. Lauridson, James R., Myers, Lawrence J.: Evaluation of fatal dog bites. *Proceedings of the American Academy of Forensic Sciences* 44: 155, 1992.
3. Myers, Lawrence J: Potential of biosensors for detection of explosive devices. First International Symposium on Explosive Detection Technology, 1991. Cherry Hill, NJ, 1991.

4. Vodyanoy, Vitaly, Pathirana, Suram, Myers, Lawrence J, Neely, William C: Molecular recognition of optical isomers (+)- and (-)-carvone by phospholipid monolayers. American Biophysical Society, 1990.
5. Ezeh, Patrick I; Myers, Lawrence J: Preliminary studies on the effect of steroids on olfactory function of the dog. Association of Chemoreception Sciences, Sarasota, FL. 1989.
6. Myers, Lawrence J: Elimination patterns of dogs in three types of confinement. American Veterinary Society for Animal Behavior, Portland, OR. 1988.
7. Myers, Lawrence J, Ezeh, Patrick I: Visual acuity of the dog measured by optokinetic technique: A preliminary estimate. American Veterinary Neurology Association, Portland, OR. 1988.
8. Myers, Lawrence J; Boddie, Randy; May, Kim: Electrophysiological and innate behavioral responses of the dog to intravenous application of sweet compounds. Association for Chemoreception Sciences/ International Symposium for Olfaction and Taste, Snowmass, CO. 1986.
9. May, Kim; Myers, Lawrence J; Buxton, Donald F: Association of anosmia with anorexia in the cat. Association for Chemoreception Sciences/ International Symposium for Olfaction and Taste, Snowmass, CO. 1986.
10. Myers, Lawrence J: Utilization of species-typical behaviors for

evaluation of sensory function in the dog. Animal Behavior Society, Raleigh, NC. 1985.

11. Myers, Lawrence J; Hanrahan, Lynn A; Nusbaum, K E; Swango, L J: Evaluation of canine olfactory function in health and disease by innate behavioral and electrophysiological techniques. Association for Chemoreception Sciences, Sarasota, Fl. 1985.
12. Myers, Lawrence J: Techniques for neurological examination of the olfactory system of the dog. American Veterinary Neurology Association, New Orleans, LA. 1984.
13. Myers, Lawrence J: Development of new techniques for evaluation of olfactory function in the canine. Alabama Academy of Science, Mobile, AL. 1984.
14. Nash, Renee A; Redding, Richard W; Myers, Lawrence J: Reference values for the somatosensory evoked response in cats. Animal Disease Research Workers of the Southern States, Auburn, AL. 1983.
15. Myers, Lawrence J: Development of the canine electroolfactogram. Animal Disease Research Workers of the Southern States, Auburn, AL. 1983.

6. *Other Professional Contributions:*

Consulting and panel activities not previously listed:

Expert witness, County of Los Angeles and City of San Diego dealing

with use of dogs to identify suspects 2001-present

Advisory Board, Campus Safety Journal, 1999-2002

Advisory Board, International Forensic Research Institute, 1997-present.

Member, International Forensic Research Institute, 1997- present.

Board Member, California Narcotic Canine Association, 1992-present.

Board Member, Canine Accelerant Detection Association, 1992- present.

Consultant, State Department, Division of Counterterrorism Assistance, 1991-1993.

Panelist, Animals in Society, Tufts University School of Veterinary Medicine, PEW Foundation Grant, 1991.

Consultant to Department of Transportation (Intelligence & Security), 1991.

Panelist, NASA Bionics program, 1990.

Consultant to Vapor Sciences, Inc., 1990-1993.

Consultant/ Expert witness, *People vs. Butler*, Wm. Nimmo, Esq., San Diego, 1990.

Consultant, Office of National Drug Policy Control, 1990-1992.

Consultant, Military Working Dog group, 1990.

Consultant, US Air Force, 1990

Consultant, FAA, 1990-1993

Consultant, US Treasury Dept., 1990-1996

Consultant to FDA, 1989

Panelist, US Senate Commerce Committee, 1989.

Panelist/Witness, US Senate Judiciary Committee, 1989.

Consultant to various law enforcement agencies, 1989- present.

Consultant to Olfacto-Labs, Inc., 1988.

Panelist, DOD Science Board Study, Detection of concealed drugs and terrorist devices, 1987.

Consultant to Ketchum Communications, 1987.

Consultant to Ralston-Purina Co.: Influence of diet on sensory function in dogs, 1987-1988.

Panelist, Department of the Army: Use of dogs to detect land mines, 1984.

Peer Review Activities

Reviewer, *Applied Animal Behaviour Sciences*

Reviewer, *Journal of Veterinary Medical Education*

Reviewer, *Journal of the American Veterinary Medical Association*

Reviewer, *Hastings Law Journal*

Reviewer, *Animal Behaviour*

Reviewer, *American Journal of Veterinary Research*.

7. *Extension Service*

Extension

1. Cooperative extension not previously listed

Consulting for behavioral cases, Alabama and elsewhere.

2. Continuing education not previously listed:

Behavin' and Misbehavein': Clinical Animal Behavior Problems in the South. Jefferson County VMA, 2002

Factors influencing performance in the detector dog, 1991-present.

Scent Production and Movement, California Narcotic Canine Association. 1996-1997.

Factors influencing performance in scenting dogs (National Police Bloodhound Association), 1997.

First Annual National Detector Dog Symposium (Organizer and Host), 1998.

Conditions Causing Deficits of Smell in the Dog (First Annual National Detector Dog Symposium), 1998

Animal behavior for the practicing veterinarian. Auburn University, 1993.

The dog in detection: Current state of knowledge, Denver Police Department, 1992.

The Sense of smell of dogs, Ralston-Purina Dog of the Year Award, 1991.

New Techniques to Evaluate Sensory Function in the Dog, Jefferson County VMA, 1990.

Fish Medicine for the Veterinarian, 1985. A two-day short course.

Techniques to evaluate the sense of smell in the dog. Auburn Annual Conference, 1984.

Fish Medicine for the Veterinarian, 1984. A two-day short course.

Service activities

Faculty Advisory Committee, 2003- present (college)

Library Committee, 2001-2002 (university)

Curriculum Committee, 1997-1998 (college)

Faculty Senate, 1996-1997. (university)

Associate Director, Institute for Biological Detection Systems, 1995-1996.
(university administrative/program development)

Director, Institute for Biological Detection Systems, 1989-1995. (university
administrative)

Faculty Advisory Committee, member, 1993-1997. (college)

Faculty Advisory Committee, Secretary, 1989-1993 (college).

Library Advisory committee, chair, 1987-1989 (college).

Faculty adviser, Auburn Veterinarian, 1987-1988 (college).

Impaired Students committee, 1987-1988 (college).

Admissions and Standards committee, 1986 (college).

United Way Fund drive chair for Department of Physiology and Pharmacology,
1985 and 1986. (department)

Faculty adviser, Human Animal Bond Club, 1985-1988. (college)

Laboratory Practices committee, chair, 1985 (college).

Seminars and Awards committee, 1983-1987 (college).

Scott-Ritchey Advisory committee, 1983-1987 (college).

Faculty adviser, Omega Tau Sigma (professional fraternity), 1983-1987, 1993-present. (college)

Graduate Seminar committee, chair, 1983-1986 (college).

Faculty Senate, 1983-1986 (university).

Neuroscience group, 1983-1986, Reestablished, 1990 (university).

Consultant for companion animal behavioral cases, 1983-present. (college)

Acting director, Veterinary electrodiagnostics laboratory, College of Veterinary Medicine, Auburn University, 1983. (college)

Faculty Forum, 1982-1986 (college).

Veterinary electrodiagnostics laboratory, 1982-1984. (college)